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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,541	04/01/2004	Andre Schafer	INFN/0074	7167

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EXAMINER

TAN, VIBOL

ART UNIT PAPER NUMBER

2819

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/815,541

**Applicant(s)**

SCHAFFER, ANDRE

**Examiner**

Vibol Tan

**Art Unit**

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 8, 11, 12 and 16-18 is/are rejected.  
7) ☒ Claim(s) 5-7, 9, 10, 13-15, 19 and 20 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/1/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 11, 12 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Leung et al. (U. S. PAT. 5,729,152).

In claim 1, Leung et al. teaches all claimed features in Fig. 20b, an input circuit for receiving a signal at an input on an integrated circuit and for assessing the signal with respect to a reference voltage, comprising: a termination circuit (2010, 2010) for setting a termination voltage (2030), wherein the termination circuit includes a first resistor (2017) and a second resistor (2016) connected in series between a high voltage

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potential (Vdd) and a low voltage potential (ground), a first voltage-dependent resistor element (2004) having a first resistance gradient (internal resistance for 2004) connected in parallel with the first resistor; and a second voltage-dependent resistor element (2005) having a second resistance gradient (internal resistance for 2005) connected in parallel with the second resistor; wherein the termination voltage (2030) is tapped between the first and second resistors; and wherein the resistance values of the first and second resistor elements are controlled by a control voltage (Data\_In) to set the termination voltage

In claims 2-4, Leung et al. further teaches the input circuit of claim 1, wherein the first (the internal resistance for 2004) and second (the internal resistance for 2005) resistance gradients have different arithmetic signs (opposite); wherein the first and second voltage-dependent resistor elements comprise transistors (2004 and 2005 are transistors); wherein the first voltage-dependent resistor element comprises a p-channel field effect transistor (2004) and the second voltage-dependent resistor element comprises an n-channel field effect transistor (2005).

Method claims 11, 12 and 16 correspond to detailed circuitry already discussed similarly with regard to claims 1-4.

Claims 17 and 18 correspond to detailed circuitry already discussed similarly with regard to claims 1-4.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leung et al. in view of applicant's admitted prior art of Fig.1.

In claim 8, Leung et al. teaches all claimed features, the input circuit of claim 1; with the exception of teaching wherein the reference voltage is a voltage level which is approximately in the center between the high level and the low level of the received signal. However, the applicant's admitted prior art of Fig. 1 teaches the reference voltage VREF is usually selected such that it is essentially at a central potential, i.e., in the center between the high potential and the low potential of the desired signal levels (page 6 of application).

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teachings of Leung et al. with the teachings of admitted prior art in Fig. 1 because a reference voltage is normally half way between potential voltage and ground.

6. Claims 5-7, 9, 10, 13-15, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**VIBOL TAN**  
**PRIMARY EXAMINER**